

REMARKS

It is requested that this amendment be entered since it overcomes the new matter issues raised by the Examiner, reduces the number of independent claims, and places the claims in condition for allowance or at least reduces the issues on appeal.

The present invention is directed to a process for stabilizing the pH of a pulp suspension during stock preparation and the formation of paper. To that end, the alkalinity or buffering ability (see page 3 of the specification) of the suspension is increased by the addition of amounts of alkali metal and carbon dioxide in excess of those needed for merely adjusting the pH to the desired value.

It is respectfully requested that the Examiner reconsider and withdraw the rejection of claims 1-26 under 35 USC 112, first paragraph. The Examiner correctly notes a problem in the accuracy of the claim language that has been corrected herein. Accordingly, each of the independent claims has been amended to recite that the feeds:

"cooperate to increase the pH of said pulp suspension and to otherwise only counter each other's pH adjusting effects without further
separate uses of their respective intermediate pH adjusting effects".

The amended language makes clear that the feeds increase the pH of the suspension to the desired level and otherwise counter each other's pH adjusting effect, without further separate uses of thereof, as the alkalinity or buffering ability of the suspension is increased by the combined effect of the feeds.

The rejection of the claims under 35 USC 112, first paragraph, is therefore overcome.

It is requested that the Examiner reconsider and withdraw the rejection of claims 1-26 under 35 USC 103(a) as being unpatentable over Admitted Prior Art ("APA") at specification page 1, paragraphs 0002 and 0003, in view of Ostberg, with or without, GB patent 815,527, with or without, EP 0 281 273.

The arguments presented in prior amendment are fully responsive to this rejection. The Examiner's further comments in the action are responded to below.

In reply to the Examiner's comments in the paragraph bridging pages 4 and 5 of the action, there is no prior art teaching of the feeds as set forth in the claims. Ostberg et al. provided an alkali feed to the delignification operation wherein such alkali feed is consumed. The alkali feed in Ostberg et al. was added in the precise amount needed to adjust the pH and not in a greater amount as required by the claims. The alkali feed's intermediate pH adjusting effect, i.e., the one before carbon dioxide was added, was used separately from the pH adjusting effect of the carbon dioxide. It was

not until following delignification that Ostberg et al. used carbon dioxide to improve the dewatering of the pulp suspension. There is no prior art teaching of the combined feeds to increase the pH of the suspension "and to otherwise only counter each other's pH adjusting effects without further separate uses of their respective intermediate pH adjusting effects". Ostberg et al. teach separate uses of the pH adjusting effects of the alkali and the carbon dioxide.

Applicants' preference for increasing the alkalinity (i.e., buffering ability) of the suspension under alkaline conditions merely reflects that carbon dioxide gas is easily dissolved in an alkaline suspension. In the paragraph bridging pages 4 and 5, the Examiner incorrectly construes this statement to equate the separate use of alkali in Ostberg et al. for pH adjustment with the claimed combined feeds to provide buffering. The further clarification of the claims to reference buffering ability is intended to highlight the distinction between stabilization by buffering and mere pH adjustment.

The Examiner's statement that "Ostberg et al. teaches using a combination of sodium hydroxide and carbon dioxide to buffer the pH of the pulp from the delignification stage to the paper machine (last full sentence of page 1 of Ostberg et al.)" is not supported. No such sentence is found at page 1 (page 508 of the publication) of Ostberg et al.

The teaching in Ostberg et al. is that carbon dioxide is used to lower the pH in order to improve dewatering. The claims were previously amended to recite the use of the combined feeds to increase the pH and the alkalinity in order to emphasize the differences over the Ostberg et al. teaching. This distinction is never addressed in the rejection of the claims.

The dependent claims set forth additional patentably distinguishing limitations not taught or suggested by the cited art. For example, claim 10 requires that the feeds be combined prior to addition to the pulp. Claims 15, 18, 20, 22 and 24 each recite feeds in amounts of 0.5 kg/ton to 5 kg/ton of dry cellulose to achieve significant buffering of typical systems encountered by applicants at the time of the invention. These further patentably distinguishing limitations are not addressed in the rejection of claims.

For all the foregoing reasons, it is respectfully submitted that claims 1-26 presently of record are in condition for final allowance and such action is requested.

If there are any fees required by this
communication, please charge the same to Deposit Account
No. 16-0820, Order No. 32107.

Respectfully submitted,

By: 
Joseph J. Corso, Reg. No. 25845

1801 East Ninth Street
Suite 1200
Cleveland, Ohio 44114-3108

(216) - 579-1700

May 27, 2005